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ABSTRACT

This paper reviews research studies conducted during 1970-1980 in the area of adolescent pregnancy. Research information is presented in a column format: column 1 provides the research findings, column 2 supplies the sources of findings, and column 3 provides interpretations of the findings. In addition, findings are organized around 11 separate areas of research interest: adolescent growth and development, intervention, program models, program evaluation, program effects, economic and social implications of adolescent pregnancy, effects on mother and infant, academic outcomes for the mother and infant, and medical, health, and nutritional concerns. For each of the above areas a bibliography for further reading is attached. (MP)

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MATRIX NO. 38
PART TWO

RESEARCH ON ADOLESCENT PREGNANCY

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PS 01 2899

RESEARCH ON ADOLESCENT PREGNANCY

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RESEARCH ON ADOLESCENT PREGNANCY

A Review of Research in Education

Introduction

This review of research in education concerning adolescent pregnancy is as comprehensive as the limitations of time and the availability of materials would permit.

The bibliographies that appear throughout the paper indicate that much has been written and many studies have been conducted. A 10-year time frame served as a general guide for the examination of the research (1970-1980). In this quest for brevity, the author acknowledges that misinterpretations or misrepresentations are a possibility and apologizes for such occurrences.

It is the author's considered judgment that much needs to be done to update and reexamine the findings presented here. This does not reflect on the scholarship of the researchers, merely the passage of time.

Jim Smith

I. Abstracting and Indexing Services Consulted

Comprehensive Dissertation Index
Dissertation Abstracts International

Cumulated Index Medicus

Current Index to Journals in Education

Education Index

International Bibliography of Research in Marriage and the Family

Psychological Abstracts

Resources in Education

Social Sciences Citation Index

Social Sciences Index

Sociological Abstracts

Women Studies Abstracts

II. Journals and Periodicals Consulted

Adolescence
American College Health Association
American Education
American Educational Research Journal
American Family Physician
American Journal of Clinical Nutrition

American Journal of Diseases of Children
American Journal of Nursing
American Journal of Obstetrics and Gynecology
American Journal of Orthopsychiatry
American Journal of Psychiatry
American Journal of Public Health and the Nation's Health
American Journal of Sociology
American School Board Journal
American Sociological Review
Annals of Internal Medicine
Archives of Sexual Behavior

Business Education Forum

Canadian Medical Association Journal
Child Development
Child Psychiatry and Human Development
Child Welfare
Childhood Education
Children
Children Today
Clearing House
Clinical Obstetrics and Gynecology
Clinical Pediatrics
Clinical Proceedings, Children's Hospital, National Medical Center
Current Psychiatric Therapies
Current Social Issues
Curriculum Review

Delaware Medical Journal

Education Digest
Educational Horizons
Educational Leadership
Evaluation and the Health Professions
Exceptional Children

Family Coordinator
Family Planning Perspectives
Family Relations
Forecast for Home Economics
Free Inquiry

Gynecological Practices

Health Education
Health and Social Work
Health Services Research

Home Economics Research Journal
Hospitals
HSMHA Health Reports

Illinois Teacher
Illinois Teacher of Home Economics

JAMA
JOGN Nursing
Journal of the American Academy of Child Psychiatry
Journal of the American Dietetic Association
Journal of American Medical Women's Association
Journal of BioSocial Science
Journal of Clinical Psychiatry
Journal of Clinical Psychology
Journal of Counseling Psychology
Journal of Family Practice
Journal of Health and Social Behavior
Journal of Home Economics
Journal of Interdisciplinary History
Journal of the International Association of Pupil Personnel Workers
Journal of Louisiana State Medical Society
Journal of Maine Medical Association
Journal of the Medical Association of Georgia
Journal of the Medical Association of the State of Alabama
Journal of Medical Education
Journal of the Medical Society of New Jersey
Journal of National Medical Association
Journal of Nursing Education
Journal of Nutrition
Journal of Pediatrics
Journal of Practical Nursing
Journal of Reproductive Medicine
Journal of School Health
Journal of Sex Research
Journal of Social Issues
Journal of Sociology and Social Welfare
Journal of Tennessee Medical Association
Journal of Youth and Adolescence

Maryland State Medical Journal
Medical Clinics North America
Minnesota Medicine
Mount Sinai Journal of Medicine

National Association of Secondary School Principals Bulletin
Nation's Schools Report
New England Journal of Medicine

New York State Journal of Medicine
NICHD
NJEA Review
Nursing Clinics of North America
Nursing Outlook

Obstetrics and Gynecology
Ohio State Medical Journal

Pediatric Annals
Pediatric Clinics of North America
Pediatrics
Pennsylvania Medicine
Personnel and Guidance Journal
Phi Delta Kappan
Population Bulletin
Postgrad Medicine
Practitioner
Primary Care: Clinics in Office Practice
Psychosomatics

Rhode Island Medical Journal

School Counselor
Science News
Social Biology
Social Education
Social Forces
Social Problems
Social Science and Medicine
Social Service Review
Social Work
Sociology and Social Research
Southern Medical Journal
Studies in Family Planning

Texas Medicine
Times Educational Supplement
Today's Education
Trans-action

USA Today

Virginia Medical Monthly
Vocational Education

Journals and Periodicals Consulted (continued)

Western Journal of Medicine
WHO Chronicles
WHO Technical Report Series
Wisconsin Medical Journal

Young Children

RESEARCH ON ADOLESCENT PREGNANCY

Findings	Source	Interpretation
III. Adolescent Growth and Development		
About 1.1 million teenagers are giving birth, obtaining abortions or having miscarriages or stillbirths in the U.S. each year.	Tietze, C. Teenage pregnancies: Looking ahead to 1984. *Family Planning Perspectives,* 1978, 10, 205-207.	
Throughout the world, pregnancy and childbearing are occurring at younger ages than in the past, resulting in adverse health, demographic and social consequences.	Hunt, W.B., II. Adolescent fertility – risks and consequences. Washington, DC: *George Washington University, Department of Medical and Public Affairs Population Reports, Series J, Number 10, 1976. Family Planning Programs.*	Postponing first births until age 20 or later would significantly reduce maternal and infant mortality and morbidity, slow population growth and contribute to improvements in the quality of life for people everywhere.
	Arehart-Treichel, J. America's teen pregnancy epidemic. *Science News,* 1978, 113, 289-304.	

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Baldwin, W. Adolescent pregnancy and childbearing – Growing concerns for Americans. *Population Bulletin,* 1976, 31.

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Braen, B., & Forbush, J.B. School-age parenthood: A national concern. *The Journal of School Health,* 1975, 45, 256-262.

Brann, E.A. A multivariate analysis of interstate variation in fertility of teenage girls. *American Journal of Public Health,* 1979, 69, 661-666.

Cobliner, W.G. Teen-age out-of-wedlock pregnancy: A phenomenon of many dimensions. *Bulletin of the New York Academy of Medicine,* 1970, 46, 438-447.

Cutright, P. The teenage sexual revolution and the myth of an abstinent past. *Family Planning Perspectives,* 1972, 4, 24-31.

Cvetkovich, G., & Grate, B. *Adolescent development and teenage fertility.* Paper presented at the Planned Parenthood Regional Conference on Adolescence, Boise, ID, 1977.

Eddinger, L., & Forbush, J. *School-age pregnancy and parenthood in the United States.* Prepared for the National Alliance Concerned with School-Age Parents, Washington, DC, 1977.

Furstenberg, F.F., Jr. Premarital pregnancy among black teenagers. *Trans-action,* 1970, 7, 52-55.

Glasser, M.L., & Pasnau, R.O. The unwanted pregnancy in adolescence. *Journal of Family Practice,* 1975, 2, 91-94.

Hill, D. Teenage pregnancies. *Free Inquiry,* 1977, 5, 59-68.

Hoeppner, M. *Early adolescent childbearing: Some further notes.* 1978. (Eric Document Reproduction Service No. ED 162-195.)

McAnarney, E.R. Adolescent pregnancy – A national priority. *American Journal of Diseases of Children,* 1978, 132, 125-126.

Rauh, J.L. The reproductive adolescent. *The Pediatric Clinics of North America,* 1973, 20, 1005-1020.

Sklar, J., & Berkov, B. Teenage family formation in postwar America. *Family Planning Perspectives,* 1974, 6, 80-90.

Smith, D.S., & Hindus, M.S. Premarital pregnancy in America 1640-1971: An overview and interpretation. *The Journal of Interdisciplinary History,* 1975, 5, 537-570.

Stone, J.P. Some teenagers are still having babies. *Psychiatric Opinion,* 1975, 12, 29-35.

Vadies, G., & Pomeroy, R. Out-of-wedlock pregnancy among American teenagers. *Journal of Clinical Child Psychology,* 1974, 3, 27-29.

Zelnik, M., & Kantner, J.F. First pregnancies to women aged 15-19: 1976 and 1971. *Family Planning Perspectives,* 1978, 10, 11-20.

Zelnik, M., *et al.* Probabilities of intercourse and conception among U.S. teenage women, 1971 and 1976. *Family Planning Perspectives,* 1979, 11, 177-183.

Findings	Source	Interpretation
Adolescent Growth and Development (continued)		
Adolescent mothers tend to be frightened, lonely girls caught in a cycle of dependency and deprivation, which, without some intervention, will perpetuate itself.	Curtis, F.L.S. Observations of unwed pregnant adolescents. *American Journal of Nursing,* 1974.	Most of the pregnant adolescents who were observed were not fulfilling the commonly recognized hungers for belonging to a group or being wanted, for self-expression, for recognition, creativity, competition, security, adventure, and cooperation.
Most pregnant girls had not developed a close relationship with anyone in their immediate families.		
The tendency of the pregnant girls was toward solitary or no activities, they spent most of their leisure time sleeping and watching TV, and many viewed pregnancy as a means of escape from unsolved problems in the home.		

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Babikian, H.M., & Goldman, A. A study in teen-age pregnancy. *American Journal of Psychiatry,* 1971, 128, 755-760.

Brandt, C.L., *et al.* Pregnant adolescents: Some psychological factors. *Psychosomatics,* 1978, 19, 790-793.

Briley, M.E., *et al.* Socioeconomic, demographic, and educational characteristics of pregnant adolescents. *Home Economics Research Journal,* 1980, 8, 184-189.

Conley, M.Mc. *Motivation for parenthood, need satisfaction, and romantic love: A comparison between pregnant and nonpregnant teenagers.* PhD dissertation, Virginia Polytechnic Institute and State University, 1979.

Cramshaw, R. The psychology of the unwed mother. *Medical Aspects of Human Sexuality,* 1971, 5, 176-188.

Dailey, A.L. *Group counseling parameters for pregnant non-residential high school students.* PhD dissertation, University of Pittsburgh, 1971.

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Goldfarb, J., *et al.* Intelligence of pregnant indigent Negro adolescents assessed by the Quick Test. *Psychological Reports,* 1973, 32, 539-542.

Greenberg, F.A. *Psychosocial characteristics of pregnant school-age adolescents.* EdD dissertation, George Washington University, 1972.

Howard, M. Pregnant school-age girls. *The Journal of School Health,* 1971, 41, 361-364.

Kandell, N. The unwed adolescent pregnancy. *American Journal of Nursing,* 1979, 79, 2112-2114.

Kane, F.J., *et al.* Motivation factors in pregnant adolescents. *Diseases of the Nervous System,* 1974, 35, 131-134.

LaBarre, M. Emotional crises of school-age girls during pregnancy and early motherhood. *Journal of the American Academy of Child Psychiatry,* 1972, 11, 537-557.

Lincoln, R. Is pregnancy good for teenagers? *USA Today,* 1978, 107, 34-37.

Miller, A.D.G. *Pressures toward deviance: The case of unwed mother.* PhD dissertation, University of Colorado, 1971.

Nadelson, C.C. The pregnant teenager: Problems of choice in a developmental framework. *Psychiatric Opinion,* 1975, 12, 6-12.

Price, J.V. Adolescents/youth. *American Journal of Orthopsychiatry,* 1971, 41, 293-306.

Ruebel, M.V. *The effects of valuing process training on the self-concept of pregnant teen-age girls attending a special school for pregnant minors.* PhD dissertation, United States International University, 1975.

Shaffer, D., *et al.* Psychiatric aspects of pregnancy in schoolgirls: A review. *Psychological Medicine,* 1978, 8, 119-130.

Sharpe, R. Counseling services for school-age pregnant girls. *Journal of School Health,* 1975, 45, 284-285.

Sitkin, E.M. *Measurement of prospective fantasy and other factors in pregnant black teen-age girls.* PhD dissertation, Columbia University, 1972.

Swanson, D.D. *The effects of behavioral group counseling on the self-concept of pregnant Negro teenagers using male and female co-counselors.* PhD dissertation, State University of New York at Buffalo, 1972.

Urman, J., & Meginnis, S.K. Process of problem pregnancy counseling. *American College Health Association,* 1980, 28, 308-315.

Walters, J., *et al. Factors related to adolescent pregnancy,* 1977 (ERIC Document Reproduction Service No. ED 151 675.)

Waxler, T.T. *A comparative study of the self-concepts and aspirations of three groups of pregnant adolescents.* PhD dissertation, Michigan State University, 1978.

Zangker, C.E. The self-concept of pregnant adolescent girls. *Adolescence,* 1977, 12, 477-488.

Findings	Source	Interpretation
Adolescent Growth and Development (continued)		
Death of a family member, parental separation, hospitalized parent, and higher occurrences of failing a grade in school, suspension from school and first appearance in juvenile court were markedly more frequent in the lives of adolescent girls who were pregnant than in a control group.	Coddington, D.R. Life events associated with adolescent pregnancies. *Journal of Clinical Psychiatry,* 1979.	Pregnant adolescents differed markedly in terms of the events that occurred within their families and within their lives.

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Chilman, C.S. *Possible factors associated with high rates of out-of-marriage births among adolescents,* 1976. (ERIC Document Reproduction Service No. ED 137 659.)

Coombs, C.L. Premarital pregnancy and status before and after marriage. *American Journal of Sociology,* 1970, 75, 800-820.

Cooper, R.S. *Application of CPI and interview data in understanding adolescent pregnancy.* PhD dissertation, University of North Carolina at Chapel Hill, 1977.

Enos, R., & Hisanaga, M. Goal setting with pregnant teen-agers. *Child Welfare,* 1979, 58, 541-552.

Frye, B.A., & Barham, B. Reaching out to pregnant adolescents. *Journal of Nursing,* 1975, 75, 1502-1504.

Harich, M.V.F. *Life histories of school-age pregnant students as a basis for the health educator's role in the prevention of pregnancy and its attendant problems.* PhD dissertation, University of Maryland, 1972.

Klein, L. Antecedents of teenage pregnancy. *Clinical Obstetrics and Gynecology,* 1978, 21, 1151-1159.

Meyerowitz, J.H., & Malev, J.S. Pubescent attitudinal correlates antecedent to adolescent illegitimate pregnancy. *Journal of Youth and Adolescence,* 1973, 2, 251-258.

Richards, M.D. Caught in conflict: The unmarried minor mother. *Child Welfare,* 1972, 51, 391-395.

Westney, O.E. *The comparative effects of a group discussion program and a lecture program on the self concept, attitudes toward pregnancy and manifest anxiety of unwed, primigravid, Negro adolescent girls.* PhD dissertation, University of Maryland, 1972.

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Wilkens, D. *Identification through regression analysis of some variables that characterize pregnant high school girls.* PhD dissertation, Southern Illinois University, 1974.

	Findings	Source	Interpretation
IV.	Pregnant Adolescents/Intervention		
	There is a high rate of sexual intercourse among unwed mothers during a 2-year period after delivery, indicating that contraceptive information for such mothers is appropriate. Most respondents felt they needed much more such information and that pregnancy is an inappropriate time for such counseling.	Nettleton, C.A., & Cline, D.W. Dating patterns, sexual relationships and use of contraceptives of 700 unwed mothers during a two year period following delivery. *Adolescence,* 1975, 10, 45-47. Clapp, D.F., & Raab, R.S. Follow-up of unmarried adolescent mothers. *Social Work,* 1978, 23, 149-153. Cumiskey, P.A., & Mudd, H.P. Postpartum group therapy with unwed mothers. *Child Welfare,* 1972, 51, 241-246.	Since traditional counseling of unwed mothers concentrates on the pregnancy and the decision whether to keep the baby or not, helps for postdelivery problems are often bypassed. Postdelivery patterns of dating and of marriage indicate a need for contraceptive counseling.

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Graves, W.L., & Bradshaw, B.R. Early reconception and contraceptive use among black teenage girls after an illegitimate birth. *American Journal of Public Health,* 1975, 65, 738-740.

Klein, L. Early teenage pregnancy, contraception, and repeat pregnancy. *American Journal of Obstetrics and Gynecology,* 1974, 120, 249-256.

Rauh, J.L., *et al.* The management of adolescent pregnancy and prevention of repeat pregnancies. *HSMHA Health Reports,* 1971, 85, 66-73.

Trussell, J., & Menken, J. Early childbearing and subsequent fertility. *Family Planning Perspectives,* 1978, 10, 209-218.

Zelnik, M. Second pregnancies to prematurally pregnant teenagers, 1976 and 1971. *Family Planning Perspectives,* 1980, 12, 69-76.

Findings	Source	Interpretation
Pregnant Adolescents/Intervention (continued)		
A large majority of teenagers is either misinformed or uninformed about the various methods of contraception and had intercourse prior to seeking contraception at a family planning clinic.	Reichelt, P.A., & Werley, H.H. Contraception, abortion and venereal disease: Teenager's knowledge and the effect of education. *Family Planning Perspectives,* 1975, 8, 148-164. Edwards, L.E. *et al.* Adolescent contraceptive use: Experience in 1,762 teenagers. *American Journal of Obstetrics and Gynecology,* 1980, 137, 583-587. Furstenberg, F.F., Jr. Preventing unwanted pregnancies among adolescents. *Journal of Health and Human Behavior,* 1971, 12, 340-347.	Because teenagers' major source of sex information is their peer group or the mass media, much of their information is misinterpreted, and they have little knowledge of contraceptive devices and their use.

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Abernathy, V. Identification of women at risk for unwanted pregnancy. *American Journal of Psychiatry,* 1975, 132, 1027-1031.

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Goldsmith, S., *et al.* Teenagers, sex, and contraception. *Family Planning Perspectives,* 1972, 4, 32-38.

Greenhouse, S. Facts about abortion for the teenager. *School Counselor,* 1975, 22, 334-337.

Kantner, J.F., & Zelnik, M. Contraception and pregnancy: Experience of young unmarried women in the United States. *Family Planning Perspectives,* 1973, 5, 21-35.

Middleton, C.B. Do unmarried teen-agers have to get pregnant? *Delaware Medical Journal,* 1974, 46, 248-250.

Nadelson, C. Abortion counseling: Focus on adolescent pregnancy. *Pediatrics,* 1974, 54, 765-769.

Nadelson, C., *et al.* Sexual knowledge and attitudes of adolescents: Relationship to contraceptive use. *Obstetrics and Gynecology,* 1980, 55, 340-345.

Osofsky, H.J. Teen-age out-of-wedlock pregnancy: Some preventive considerations. *Adolescence,* 1970, 5, 151-170.

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Reichelt, P.A., & Werley, H.H. A sex information program for sexually active teenagers. *Journal of School Health,* 1975, 45, 100-107.

Schinke, S.P., & Gilchrist, L.D. Adolescent pregnancy: An interpersonal skill training approach to prevention. *Social Work and Health Care,* 1977, 3, 159-167.

Vadies, E., & Hale, D. Attitudes of adolescent males toward abortion, contraception, and sexuality. *Social Work and Health Care,* 1977, 3, 169-174.

Wolleat, P.L. Abortion information: A guidance viewpoint. *School Counselor,* 1975, 22, 338-341.

Youngs, D.D., & Niebyl, J.R. Adolescent pregnancy and abortion. *Medical Clinics of North America,* 1975, 59, 1419-1427.

Zelnik, M. Sex education and knowledge of pregnancy risk among U.S. teenage women. *Family Planning Perspectives,* 1979, 11, 335-357.

Findings	Source	Interpretation
Pregnant Adolescents/Intervention (continued)		
Of teenage pregnancies, 66% is unintended; of births resulting from teenage pregnancies, 50% is unintended. Ignorance and misinformation about reproduction, pregnancy, and contraception are reasons for these accidental pregnancies and births.	Ambrose, L. Misinforming pregnant teens. *Family Planning Perspectives,* 1978, 10, 51-57. Byrne, D. Sexual attitudes and contraceptive practices. *USA Today,* 1978, 107, 28-30. Eaton, L.F. *The relationship of unwanted teenage pregnancy to sex knowledge, attitudes toward birth control, acceptance of one's sexuality, parental acceptance, risk taking and age.* PhD dissertation, University of Michigan, 1979. Ewer, P.A. *Research on adolescent pregnancy and sexual behavior.* University of Illinois, 1977.	Informational materials available to teenagers are not always adequate and rarely deal with such subjects as symptoms of pregnancy, the pregnancy test, abortion, miscarriage, child care, educational and career counseling, and financial aid.

Bibliography – Additional Sources

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Lewis, D.O., *et al.* Experiences with psychiatric services in a program for pregnant school-age girls. *Social Psychiatry,* 1973, 8, 16-25.

Lewis, D.O., & Lewis, M. Ethical and moral considerations in the management of the unwed pregnant minor. *Social Psychiatry,* 1971, 6, 40-45.

Notman, M.T. Teenage pregnancy: The nonuse of contraception. *Psychiatric Opinion,* 1975, 12, 23-27.

Reichelt, P.A. Coital and contraceptive behavior of female adolescents. *Archives of Sexual Behavior,* 1979, 8, 159-172.

Rosen, R.H. *The first sexual experience: Preliminary findings for a group of pregnant teenagers.* Wayne State University, Detroit, Michigan, 1980.

Ryan, G.M., Jr., & Sweeney, P.J. Attitudes of adolescents toward pregnancy and contraception. *American Journal of Obstetrics and Gynecology,* 1980, 137, 358-366.

Scales, P. The context of sex education and the reduction of teen-age pregnancy. *Child Welfare,* 1979, 58, 263-275.

Schiller, P. A sex attitude modification process for adolescents. *Journal of Clinical Child Psychology,* 1974, 3, 50-51.

Settlage, D.S., *et al.* Sexual experience of younger teenage girls seeking contraceptive assistance for the first time. *Family Planning Perspectives,* 1973, 5, 223-226.

Zelnik, M., & Kantner, J.F. Reasons for nonuse of contraception by sexually active women aged 15-19. *Family Planning Perspectives,* 1979, 11, 289-296.

Zelnik, M., & Kantner, J.F. Sexual activity, contraceptive use and pregnancy among metropolitan-area teenagers. *Family Planning Perspectives,* 1980, 12, 34-39.

Findings	Source	Interpretation
Pregnant Adolescents/Invervention (continued)		
Parenthood in adolescence does not bring with it an altogether unique set of problems. However, many of these difficulties appear to be enhanced by youthfulness and lack of life experience and skills. A shortage of financial re-	Bonventre, K., & Kahn, J. Interviews with adolescent parents: Looking at their needs. *Children Today,* 1979, 8, 17-20.	Some problems of early childbearing are the direct result of the termination or limitation of some life choices that occurred during pregnancy or childbirth.

Findings	Source	Interpretation
Pregnant Adolescents/Intervention (continued)		
sources, isolation and loneliness, and the need for dependable, acceptable child care are frequently noted areas of difficulty. Completing one's school and/or training is often delayed and sometimes given up altogether.		
There are differences in the way service providers and adolescent parents defined the problems and needs and acceptable forms of help to alleviate them.		Some differences result from behavior of individual service providers; many are a result of policies formulated at or above the agency level; and many from the need for concrete help as opposed to *soft* services with little or no concrete assistance; i.e., financial aid, housing, child care, etc.

Bibliography – Additional Sources

Furstenberg, F.F., Jr. Premarital pregnancy and marital instability. *Journal of Social Issues,* 1976, 32, 67-86.

McCarthy, J., & Menken, J. Marriage, remarriage, marital disruption and age at first birth. *Family Planning Perspectives,* 1979, 11, 21-23.

Saed, W.W. Counseling the adolescent parent. *School Counselor,* 1979, 26, 346-349.

Slavick, C.A. *Coping with teen-age parents.* Paper presented at the Annual Meeting of the National School Boards Association (35th), Miami Beach, FL, 1975.

Smith, P.B., *et al.* Child-rearing attitudes of single teenage mothers. *American Journal of Nursing,* 1979, 79, 2115-2116.

Tumblin, A.P. *Young black men who are involved in premarital pregnancies with high school partners.* Georgia Retardation Center, Atlanta, GA, 1972.

Wallace, H.M., *et al.* A study of services and needs of teenage pregnant girls in the large cities of the United States. *American Journal of Public Health,* 1973, 63, 4-16.

Bibliography – Additional Sources (continued)

Williams, T.M. Childrearing practices of young mothers: What we know, how it matters, and why it's so little. *American Journal of Orthopsychiatry,* 1974, 44, 70-75.

Findings	Source	Interpretation
Pregnant Adolescents/Intervention (continued)		
Pregnant girls required to leave school when pregnancy became known were affected by whether or not they contacted guidance counselors. Those who did were more likely to reenroll, were more likely to receive prenatal care, and had more medical complications than those who did not have counselor contact.	Birdwhistell, M.C., & Beard, R.L. Intervention with pregnant students. *Personnel & Guidance Journal,* 1971, 49, 453-458. Barnard, J.E. Peer group instruction for primigravid adolescents. *Nursing Outlook,* 1970, 18, 42-43. Black, S. Group therapy for pregnant and nonpregnant adolescents. *Child Welfare,* 1972, 51, 514-518.	All pregnant girls should be required to make contact with guidance counselors before leaving school. This would help these girls with information concerning reenrollment and prenatal care.

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Braen, B.B. The evolution of a therapeutic group approach to school-age pregnant girls. *Adolescence,* 1970, 5, 171-186.

Collis, E.T., & Wurtz, R.E. The pregnant pupil and the counselor. *Michigan Personnel & Guidance Journal,* 1972, 3, 45-48.

Evans, J.R., *et al.* Teenagers: Fertility control behavior and attitudes before and after abortion, childbearing or negative pregnancy test. *Family Planning Perspectives,* 1976, 8, 192-200.

Galant, R., & Moncrieff, N.J. *Counseling the pregnant teenager.* Clearinghouse on Counseling and Personnel Services, Ann Arbor, MI, 1974. (ERIC Document Reproduction Service No. ED 105 359.)

Harrison, C.H. *Schoolgirl pregnancy: Old problem; New solutions.* National School Public Relations Association, Washington, DC, 1972. (ERIC Document Reproduction Service No. ED 066 692.)

Kapita, R.R. *Counseling the pregnant teenager.* Clearinghouse on Counseling and Personnel Services, Ann Arbor, MI, 1973. (ERIC Document Reproduction Service No. ED 082 105.)

Bibliography – Additional Sources (continued)

Kidder, M.J. *Counseling the pregnant teenager.* Clearinghouse on Counseling and Personnel Services, Ann Arbor, MI, 1971. (ERIC Document Reproduction Service No. ED 061 564.)

Schinke, S.P., *et al.* Preventing unwanted adolescent pregnancy: A cognitive-behavioral approach. *American Journal of Orthopsychiatry,* 1979, 49, 81-88.

Scott, K.G. The causes and outcomes of teenage pregnancy. Manuscript to appear in B.W. Camp (Ed.), *Advances in Behavioral Pediatrics* (Vol. 2). JAI Press, Inc., 1980.

	Findings	Source	Interpretation
V.	Pregnant Adolescents/Program Models		
	Special schools for pregnant girls in New York City met a great need in preventing dropouts and assisting pregnant students in completing graduation requirements.	Schreiber, D., & Day, R.J. *Schools for pregnant girls in New York City.* Paper presented at the American Association of School Administrators, Atlantic City, NJ, 1971.	Boards of Education and School Districts can fulfill their obligation for educating even pregnant students, and attention to specialized objectives can produce dramatic changes in the academic success of pregnant adolescents.
	Pregnant students have special needs that can be met in special schools that offer programs that include objectives that: improve attendance; increase the incidence of live births among pregnant students; increase infant care and homemaking skills; provide the students with saleable skills; and change their academic profile.	Allein, M. *An occupational program for school-age mothers.* Annual Report, The Margaret Hudson Program, Tulsa, OK, 1979.	

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Foltz, A., *et al.* Pregnancy and special education: Who stays in school? *American Journal of Public Health,* 1972, 62, 1612-1619.

Frankford, E.R. *Community-based feminist programming for girls: An approach to pregnancy prevention.* Paper presented at the Annual Meeting of the National Council on Family Relations, Philadelphia, PA, 1978.

Goldstein, P.J., *et al.* Vocational education: An unusual approach to adolescent pregnancy. *Journal of Reproductive Medicine,* 1973, 10, 77-79.

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Klein, L. Models of comprehensive services: Regular school based. *Journal of School Health,* 1975, 45, 271-273.

LaBarre, M. *A community project for continuing education, health and social services for pregnant school girls.* Duke University, Durham, NC, Medical Center.

Martin, J.W. School-age mothers go to classes. *The Education Digest,* 1971, 36, 44-45.

McMurray, G.L. Community action on behalf of pregnant school age girls: Educational policies and beyond. *Child Welfare,* 1970, 49, 342-346.

Milk, J.C. Adolescent parenthood: Two Louisiana parishes offer special programs for pregnant school-age girls. *Journal of Home Economics,* 1973, 65, 31-35.

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A continuing education program for school age pregnant girls. Harford-Cecil Supplementary Education Center, Havre de Grace, MD, 1968. (ERIC Document Reproduction Service No. ED 036 940.)

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New futures school: A comprehensive program for school-age parents. Albuquerque Public Schools, NM, 1970. (ERIC Document Reproduction Service No. ED 154 328.)

Findings	Source	Interpretation
Pregnant Adolescents/Program Models		
Adolescent program statistics support the idea of an all-day clinic to include postpartal teenagers. In addition to a low antepartal delinquency rate, *Teen Graduates* are more likely to return for a postpartal appointment.	Peoples, M.D., & Barrett, A.E. A model for the delivery of health care to pregnant adolescents. *JOGN Nursing,* 1979, 7, 22-26. Berg, M. *et al.* Prenatal care for pregnant adolescents in a public high school. *The Journal of School Health,* 1979, 49, 32-35.	Compared with an overall postpartal delinquency rate of 45%, graduates of an adolescent program is 17%.

Findings	Source	Interpretation
Pregnant Adolescents/Program Models (continued)		
	Dickens, H.O. *et al.* One hundred pregnant adolescents, treatment approaches in a university hospital. *American Journal of Public Health,* 1973, 63, 794-800.	

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Kappelman, M., *et al.* A unique school health program in a school for pregnant teenagers. *Journal of School Health,* 1974, 44. 303-306.

Levenson, P., *et al.* Comprehensive interactional model for health education delivery to teenage mothers. *Journal of School Health,* 1979, 49, 393-396.

Webb, G.A., *et al.* A comprehensive adolescent maternity program in a community hospital. *American Journal of Obstetrics and Gynecology,* 1972, 113, 511-523.

	Findings	Source	Interpretation
VI.	Pregnant Adolescents/Program Evaluation		
	Programs for pregnant adolescents are bringing them into prenatal care early in their pregnancies, reducing pregnancy complications and prematurity, making it possible for pregnant students to continue their education and sometimes convincing them to return to their home schools after delivery.	Klerman, L.V. Evaluating service programs for school-age parents. *Evaluation and the Health Professions,* 1979, 1, 55-70.	Findings from a limited number of programs for pregnant adolescents indicate some successes. However, most of the reports used suffer from methodological weaknesses. Improvements in study design and ultimately in program effectiveness could have positive results in long-term accomplishments of programs. Properly selected control

Findings	Source	Interpretation
Pregnant Adolescents/Program Evaluation (continued)		
Participants in special programs feel positively about the programs and urge other pregnant girls to enroll.		groups, improved analytic procedures, and specification of realistic program goals are indicated as areas needing to be improved.
Less positive were results in terms of long-term continuation of education, delay of subsequent pregnancies, or achievement of economic independence. Most positive results of programs dealt with medical factors in reducing poor clinical outcomes of adolescent pregnancy, toxemia, prematurity, low perinatal deaths and high Apgar scores.		

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Jorgenson, V. Clinical report on Pennsylvania Hospital's adolescent program. *Obstetrics and Gynecology*, 1972, 112, 816-818.

Moore, A. *Analysis of a field study: Programs, services, and approaches toward the reduction of adolescent pregnancy* (Final Report). Secretary's Advisory Committee on the Rights and Responsibilities of Women, Department of Health, Education, and Welfare, Washington, DC, 1977.

Nix, L.M. *School-age mothers: The long range effects of comprehensive services.* EdD dissertation, Temple University, 1977.

Osofsky, H.J. On attempting to reach the "unreachable" individual: A progress report of a program for pregnant schoolgirls. *Obstetrics and Gynecology*, 1968, 32, 869-881.

Findings	Source	Interpretation
Pregnant Adolescents/Program Evaluation (continued)		
The typical participant in a comprehensive program was under 16, single, and supported by and living with one or both parents. Pregnancy was the reason for leaving public school, and the opportunity to complete high school was given as a reason to enter the program.	Barton, F.L. *et al.* Salem Teen Mother's Program: A follow-up study. A practicum presented to fulfill degree requirements. Portland State University, Portland, OR, 1980.	There appears to have been a transition from adolescents being dependent upon their parents to young adults who are self-sufficient.
The majority of respondents who completed the program were married, living independently of their parents and had their children living with them.		The comprehensive program with education as a major focus helps to keep young women in school and helps them obtain a high school diploma.
48% of respondents obtained a high school diploma or GED while in the program; 30% received a diploma after leaving the program. 75% of those who returned to their home schools stayed until graduation.		
78% of respondents took classes in business skills and found them useful in employment. The greatest number of these young women were employed in office-type jobs.		The business skills program was effective in increasing employability for many program participants.

Findings	Source	Interpretation
Pregnant Adolescents/Program Evaluation (continued)		
	Blackman, M.E. *Preparation for parenthood, evaluation plan and program evaluation.* Waco Independent School District, TX, 1973.	
	Boykin, N.M. *Sex discrimination in public education: Comparative analyses of comprehensive education programs for pregnant high school students in selected urban school districts of California and Michigan.* PhD dissertation, University of Michigan, 1976.	

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Smith, C. *Some findings reported to CEYW Advisory Council CEY,* Kalamazoo Public Schools, Kalamazoo, MI, 1978.

Youngs, D.D. *et al.* Experience with an adolescent pregnancy program. *Obstetrics and Gynecology,* 1977, 50, 212-216.

Findings	Source	Interpretation
VII. Pregnant Adolescents/Program Effects		
Of 233 girls enrolled in a program for pregnant students under age 16, 14% completed their graduation requirements and received high school diplomas; 56% returned to their regular school; and 14% dropped from the program.	Syropoulos, M. *Evaluation of the Program to Continue the Education of Girls Who Must Leave School Because of Pregnancy, 1970-71.* Detroit, MI Public Schools, Michigan Department of Research and Development, 1971. Hansen, C.M. Effects on pregnant adolescents of attending a special school. *Journal of the American Dietetic Association,* 1976, 68, 538-541.	A special program – designed to continue the education of girls who might otherwise be compelled to drop out of school during pregnancy or after childbirth and provide comprehensive educational, social work, and medical services – meets the needs of the pregnant school-age adolescent. Careful selection for admission; i.e., those judged most likely to take advantage of a specialized program, enhances the possibilities for that program producing satisfactory outcomes among its participants.
Participants in the comprehensive program have fewer future unwanted pregnancies – 14% – than nonparticipants.	LaGuidice, M.A. *The effect of a comprehensive program on future unwanted pregnancies* (Research report). Albany, NY: Community Maternity Services, Catholic Charities, Albany Diocese, 1980. Currie, J.B. *et al.* Subsequent pregnancies among teenage mothers enrolled in a special program. *American Journal of Public Health,* 1972, 62, 1606-1611. Gatchell, L. *A study of teenage mothers at two years postpartum* (1978 and 1979 Annual Reports). The Margaret Hudson Program, Inc., Tulsa, OK.	Individual counseling, peer support, and decision making skills offered by the program help provide greater emotional and psychological strengths to the client and help her develop more positive decision making skills.

Findings	Source	Interpretation
Pregnant Adolescents/Program Effects (continued)		
Mothers in an educationally-based program for inner city school-age pregnant adolescents had significantly more years of education than did control mothers, and their children showed superior social development compared to the children of control mothers.	Bennett, V., & Bardon, J.I. The effects of a school program on teenage mothers and their children. *American Journal of Orthopsychiatry,* 1977, 47, 671-678. Kipp, M.J. *A study of the adjustment and attitudinal changes undergone in an urban area by unwed pregnant girls in a special education center as compared with those remaining in a regular school setting.* PhD dissertation, St. John's University, 1973.	An educationally-based program that offers health care is effective in meeting the needs of pregnant adolescents from the inner city.

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Effects of a short-term sex education program on indigent adolescents. *Proceedings of the Annual Convention of the American Psychological Association,* 1970, 5, 561-562.

Findings	Source	Interpretation
Pregnant Adolescents/Program Effects (continued)		
Except for the very young (14 years and under), certain demographic characteristics, such as race and socioeconomic status, are more important determinants of obstetric complications than is age alone.	Stine, O.C., & Kelley, E.B. Evaluation of a school for young mothers. *Pediatrics,* 1970.	Where the variables of nonwhite race and low socioeconomic status are prominent, prematurity increases sharply and toxemia rates soar.

Findings	Source	Interpretation
Pregnant Adolescents/Program Effects (continued)		
Adolescents have a statistically significant higher rate of prematurity and greater rates of toxemia than older mothers.		
Accountability studies indicate that 80% of the participants enrolled in an alternative educational program for pregnant girls completed their educations and were gainfully employed.	Link, P.W. *An alternative program for pregnant schoolgirls.* Paper presented at the Annual International Convention of The Council for Exceptional Children, Dallas, TX, 1979.	A program with particular emphasis on services for pregnant girls and with special objectives, which operates as an alternative to the regular school, can be successful in helping girls complete their education and find gainful employment.
VIII. Adolescent Pregnancy/Economic and Social Implications		
An early birth affects the amount of schooling a young woman is able to complete despite family background and motivation. Also, early birth plays a causal role in school dropout.	Moore, K.A. *et al.* Teenage motherhood: Its social and economic costs. *Children Today,* 1979, 8, 12-16.	The teenage parent needs assistance in completing high school. This assistance can be provided through special programs for pregnant adolescents and mothers. Though costly, such programs are likely to pay off economically.
The association between an early first birth and high subsequent fertility is statistically significant even when factors are held constant, such as religion, education, parental status, number of siblings the woman had, regional background, age at marriage, premarital timing of the first birth and employment with young children in the home.	Fenton, E., & Siegel, B. Precocious fathers. *American Journal of Orthopsychiatry,* 1980, 50, 469-480. Furstenberg, F.F., Jr., & Crawford, A.G. Family support: Helping teenage mothers to cope. *Family Planning Perspectives,* 1978, 10, 322-333.	The initial difficulties an adolescent experiences caused by early parenthood and reduced educational attainment often are compounded by subsequent high fertility.

Findings	Source	Interpretation
Adolescent Pregnancy/Economic and Social Implications (continued)		
Early childbearing increases the chances of being poor later in life, suggesting that teenage mothers are especially likely to require welfare support.	Jekel, J.F., & Forbush, J.B. Service needs of adolescent parents. *Journal of School Health,* 1979, 49, 527-530. Juhay, A. The unmarried adolescent parent. *Adolescence,* 1974, 9, 263-272.	Programs aimed at assisting young mothers to complete high school are a good investment for the government.
Loss of education associated with a birth during the high school years has important and long-lasting consequences.	Moore, K.A. *et al. Teenage motherhood: Social and economic consequences.* The Urban Institute, 1979. Hofferth, S.L., & Moore, K.A. Early childbearing and later economic well-being. *American Sociological Review,* 1979, 44, 784-815.	Women with less education have larger families, experience more frequent marital instability, work less, are employed at lower paying jobs, are more likely to experience poverty and have a higher probability of requiring public assistance.
Initiating childbearing as a teenager is associated with significantly larger families and increases the probability of dependence on welfare.		Early childbearing reduces the mother's participation in the labor force and her earnings. More children require family resources to be stretched across more persons, initiating the need for public assistance.
Intervention in the adolescent pregnancy process to reduce negative consequences is possible.		Schooling, subsequent childbearing, and acquiring labor market skills are points in the process of adolescent pregnancy where intervention can reduce negative consequences.

Findings	Source	Interpretation
Adolescent Pregnancy/Economic and Social Implications (continued)		
In relation to poverty, the timing of the first birth may be of greater strategic importance than the ultimate size of the family.	Johnson, C.L. *Adolescent pregnancy and poverty: Implications for social policy.* Paper presented at the Annual Meeting of The Society for the Study of Social Problems, Denver, CO, 1971.	Adolescent girls who become mothers at a too young age have less time, energy, and opportunity for continuing their education. This limits their chances for moving out of the low income levels rather than the adverse effects of excess fertility that produce large families.
Adolescent pregnancy is far less a moral problem than it is a socioeconomic and health problem.		The marital status of adolescents who become mothers at an early age has far less impact than too-early marriage and/or childrearing that predispose young girls to disadvantages directly related to poverty conditions.

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Lorenzi, E.M. *et al.* School-age parents: How permanent a relationship? *Adolescence,* 1977, 12, 13-22.

Olson, L. Social and psychological correlates of pregnancy resolution among adolescent women. *American Journal of Orthopsychiatry,* 1980, 50, 432-445.

Osofsky, J.D., & Osofsky, H.J. Teenage pregnancy: Psychological considerations. *Clinical Obstetrics and Gynecology,* 1978, 21, 1161-1173.

Findings	Source	Interpretation
Adolescent Pregnancy/Economic and Social Implications (continued)		
The social and economic impact of teenage childbearing on the young mother indicates that her schooling is likely to be interrupted and foreshortened, she often has additional children soon after the first, her job opportunities are limited because of her educational deficit and parenting responsibilities, and her risk of being poor is increased. If she marries as a teenager, her husband is also likely to have relatively low earnings and there is a high probability that the marriage will dissolve.	Moore, K.A. Teenage childbirth and welfare dependency. *Family Planning Perspectives,* 1978, 10, 233-235. Moore, K.A., & Hofferth, S.L. *Teenage childbearing: Consequences for women, families, and government welfare expenditures.* Washington, DC: Center for Population Research of the Department of Health, Education and Welfare, 1977. Moore, K.A. *et al. Out of wedlock pregnancy and childbearing* (Working Paper 992-02). Washington, DC: The Urban Institute, 1976.	Early childbearing exacts a heavy social and economic toll from the teenage mother, her family and society at large.
The effects of teenage childbearing are long-term. Young parents acquire less education than their contemporaries; they often are limited to the less prestigious jobs and the women to more dead-end employment. Teenage marriages most often are unstable, and couples who become parents as teenagers expect to have more children than they want.	Card, J.J., & Wise, L.L. Teenage mothers and fathers: The impact of early childbearing on the parents' personal and professional lives. *Family Planning Perspectives,* 1978, 10, 199-204. Moore, K.A. *The consequences of age at first childbirth: Family size* (Working paper 1146-02). Washington, DC: The Urban Institute, 1978. Polsby, G.K. Unmarried parenthood: Potential for growth. *Adolescence,* 1974, 9, 273-284.	Early childbearing shortens the number of years an individual would otherwise spend in school. Education is important in determining job prestige and income in later life. Adolescent childbearing is likely to disrupt the normal route to adult achievement. Because they have longer reproductive careers, teenage childbearers have more children than their classmates.

Findings	Source	Interpretation
Adolescent Pregnancy/Economic and Social Implications (continued)		
Teenage childbearing is associated with less schooling, lower income, increased poverty and dependency, and increased levels of childbearing, much of which is unwanted and out-of-wedlock.	Trussell, T.J. Economic consequences of teenage childbearing. *Family Planning Perspectives,* 1976, 8, 184-191. Moore, K.A., & Caldwell, S.B. The effect of government policies on out-of-wedlock pregnancy. *Family Planning Perspectives,* 1977, 9, 165-169. Stevens, J.H. The consequences of early childbearing. *Young Children,* 1980, 35, 47-55.	Education is likely to be curtailed by pregnancy, as is formal or informal job training, creating a negative impact on income and assets. The incidence of poverty rises substantially as the age at which women become mothers falls. The earlier the age at first birth, the greater is cumulated fertility.
IX. Mother and Infant on Parenting and Children		
Teenagers expect too little, too late with respect to the cognitive and social development of babies.	Epstein, A.E. *Pregnant teenagers' knowledge of infant development.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, San Francisco, CA, 1979. Burkart, J., & Whatley, A.E. The unwed mother: Implications for family life educators. *The Journal of School Health,* 1973, 43, 451-454. Weigle, J.W. Teaching child development to teenage mothers. *Illinois Teacher of Home Economics,* 1970, 19, 157-159.	When pregnant teenagers are asked to rank order six areas in which they feel they need more information: prenatal care, health and nutrition, basic care giving and safety, perceptual and motor development, social development; to rank expectations regarding the temporal emergence of particular needs and abilities of infants and toddlers; and to accept or reject as being appropriate or inappropriate a series of mother-infant interactions, the girls will expect little of the infants until the infants are beyond the infant age grouping.

Findings	Source	Interpretation
Mother and Infant on Parenting and Children (continued)		
At age 4, children of teenage mothers had lower IQ scores, a higher retardation rate, less advanced motor development, and a higher frequency of deviant behavior than children of older mothers.		
From the 2nd through the 7th year of life, children of adolescent mothers had slightly increased frequencies of cerebral palsy; battered child syndrome; and among whites only, severe anemia – rare events in all maternal age groups.		For most of the maternal and child characteristics examined, differences among age groups were smaller than those among socioeconomic or ethnic groups. Biological deficit was not strongly associated with early childbearing, but the adverse effects of environmental deficit were evident.
At age 7, adolescents' children more often were living in foster or adoptive homes, their mothers more frequently were unmarried and had fewer children. Level of education was still lower among teenage mothers, and more of them were receiving public assistance.		A comparison of socioeconomic index scores indicated downward social mobility for adolescent mothers and for the adult black mothers as well.
Poor and/or nonwhite pregnant adolescents are high risk from medical, educational and social points of view.	Osofsky, H.J., & Osofsky, J.D. *Adolescents as mothers: Results of a program for low income pregnant teen-agers with some emphasis upon infants' development.* Paper presented at the American Orthopsychiatric Association Convention, San Francisco, CA, 1970.	A comprehensive, single-site program that offers appropriate professional services can remove or reduce much of the risk of low-income, teen-age pregnancies.

Findings	Source	Interpretation
Mother and Infant on Parenting and Children (continued)		
A comprehensive, nonclinic type program, which provides single site medical and psychological services for low-income pregnant adolescents and their infants, can: reduce incidences of prematurity and small-for-dates infants; produce a high rate of educational success; and produce favorable social service data.		
Infant and mother-infant interaction data provide a baseline for future study of developmental problems.		
As compared with women in their 20s, adolescent mothers were of lower socioeconomic status, had less education, and more often were unmarried.	Levinson, P. *et al.* Serving teenage mothers and their high-risk infants. *Children Today,* 1978, 7, 11-15, 36.	
The teenage mothers, who in this study received almost as much prenatal care as the older mothers, had a higher incidence of anemia and urinary tract infection. Complicated deliveries were slightly less frequent among adolescents and increased perinatal loss was not associated with early childbearing.		

Findings	Source	Interpretation
Mother and Infant on Parenting and Children (continued)		
Short gestational age, low birthweight, and low Apgar scores were more frequent among infants of adolescents but they were slightly superior to infants of older mothers in psychomotor performance at 8 months of age and did not differ from them in frequency of selected signs of developmental delay through the first year.		
Mothers of preterm infants, lower-class mothers, and teenage mothers experienced some difficulties in relating to their infants. Being born to a lower-class mother or being born preterm poses some problems for the infants but being born to a teenage mother, despite her interaction difficulties, did not seem to add significantly to the problems of the lower-class preterm during the first months of infancy.	Field, T.M. Interactions of preterm and term infants with their lower- and middle-class teenage and adult mothers. In *High-risk infants and children: Adult and peer interactions.* New York, NY: Academic Press, Inc., 1980. Field, T.M. *et al.* Teenage, lower-class, black mothers and their preterm infants: An intervention and developmental follow-up. *Child Development,* 1980, 51, 426-436. Wise, S., & Grossman, F.K. Adolescent mothers and their infants: Psychological factors in early attachment and interaction. *American Journal of Orthopsychiatry,* 1980, 50, 454-468.	Although preterm infants of lower-class teenage mothers were characteristically similar to the preterm offspring of adult lower-class mothers, the teenage mothers were less active during interactions. The lesser responsivity of the lower-class teenage mothers of preterm infants may not have any differential effects on the offspring until later in development. Smallness for date at birth may contribute to differences in maternal interaction patterns. Social class, teenage mothering, and preterm delivery may combine as more important risk factors than interactions of preterm and term infants with their mothers.

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Cannon, K., & Kahn, J. *The ecology of help-seeking behavior among adolescent parents.* American Institutes for Research in the Behavioral Sciences, Cambridge, MA, 1979. (ERIC Document Reproduction Service No. ED 176 158.)

Carta, E. *Education for school-age parenting.* Final Report. Norwalk Board of Education, Norwalk, CT. (ERIC Document Reproduction Service No. ED 138 716.)

Copeland, D.Z. Unwed adolescent primigravidas identify subject matter for prenatal classes. *JOGN Nursing*, 1979, 8, 248-253.

Kruger, W.S. Education for parenthood and school-age parents. *Journal of School Health*, 1975, 45, 292-295.

Findings	Source	Interpretation
X. Academic Outcomes of the Mother and Infant		
Children born to teenagers suffer intellectual deficits, largely caused by the economic and social impact of early childbearing on young parents. These children are more likely to spend part of their childhood in one-parent households and to have children themselves while still adolescents.	Baldwin, W., & Cain, V.S. The children of teenage parents. *Family Planning Perspectives*, 1980.	While excellent prenatal care of the adolescent mother may result in the birth of a healthy infant, much of the deficit in the cognitive development of children born to teenagers results from the social and economic consequences of early childbearing.
Preterm infants of teenage mothers who received early intervention showed more optimal growth, Denver scores, and face-to-face interactions at 4 months. Their mothers rated their infants' temperaments more optimally. At 8 months, the intervention group received superior Bayley mental, Caldwell, and infant temperament scores.	Field, T.M. *et al.* Teenage lower-class black mothers and their preterm infants: An intervention and developmental follow-up, *op. cit.*	A home-based, parent-training intervention program seems to result in mothers rating their infants' temperaments more optimally, expressing more realistic developmental milestones and child-rearing attitudes, and receiving higher ratings on face-to-face interactions.

Findings	Source	Interpretation
Academic Outcomes of the Mother and Infant (continued)		
Term group infants failed to perform significantly better than preterm group infants at either the neonatal or 1-month periods.	Widmayer, S.M., & Field, T.M. Effect of Brazelton demonstrations on early interactions of preterm infants and their teenage mothers. *Infant Behavior and Development,* 1980.	This similar performance of term and preterm infants may relate to being close in gestational age and being relatively healthy neonates.
Interaction scores of demonstration group were more optimal for interactive processes.		Brazelton demonstration combined with MABI assessments may substantially influence the interaction behaviors of both mother and infant.
Demonstration group mothers talked more, emitted more animated facial expressions and were more contigently responsive to their infants than the preterm control group during face-to-face interactions.		The mother's observation of the Brazelton Scale administered to the healthy preterm infant and the weekly completion of the MABI scale appeared to facilitate more optimal feeding and face-to-face interactions.
Young mothers from the program returned to school at an impressive rate (85%), and while almost all remained sexually active, the rate of repeated pregnancy was low (7.5% in 12 mos. and 21% in 24 mos.) compared with a national figure of 25% in 12 months.	Stanley, J. *et al. Adolescents as parents: Development and assessment of a parenting education program for the first year after birth.* Baltimore, MD: Center for School-Aged Parents and Their Infants, Johns Hopkins Medical Institutions, 1980.	A program designed to prevent or mitigate some of the adverse consequences of adolescent childbearing: complications of pregnancy, labor and delivery; perinatal and later infant death; low birthweight infants; developmental defects in children; child neglect and abuse; and for the mother, increased risk of: early repeat pregnancy; school drop-out; welfare dependency; and family instability, etc., can provide the self-motivation for such prevention.

Findings	Source	Interpretation
Academic Outcomes of the Mother and Infant (continued)		
Analysis of classroom data revealed that about 80% of the students in reading and 85% of the students in math achieved mastery in at least one instructional objective. However, further analysis showed that many students already had mastered a significant number of objectives prior to instruction.	Echternacht, G. *Corrective reading and corrective mathematics instruction of pregnant school age girls.* Brooklyn, NY: New York City Board of Education, Office of Educational Evaluation, Summer 1975.	The use of a diagnostic and prescriptive approach to instruction, and the use of diagnostic and mastery tests for evaluation of results, can produce misleading data if the skills measured are at relatively low levels.
School achievement, as reflected by highest grade completed at the end of pregnancy, was related to risk of pregnancy as well as to election of induced abortions. The distribution of pregnancies by age and grade suggests an increased risk of pregnancy is associated with below average and with above average grade attainment.	Hansen, H. *et al.* School achievement: Risk factor in teenage pregnancies? *American Journal of Public Health,* 1978.	The incongruity of age and school achievement may identify groups of adolescent school girls who have special needs for preventive programs.
The academic performance of firstborn children of mothers age 15 and under, in this study, parallels closely that of their peers born to older women from similar racial and socioeconomic background.	Morrow, B.H. Elementary school performance of offspring of young adolescent mothers. *American Educational Research Journal,* 1979, 16, 423-429.	Eight-year-old children born to young black adolescents of low socioeconomic status, when compared with a control group of peers of similar background, yielded no significant differences in standardized achievement test scores, behavior and social adjustment ratings, or school cumulative record data.

Findings	Source	Interpretation
Academic Outcomes of the Mother and Infant (continued)		
A program of individualized instruction in reading and mathematics did not yield statistically significant gains in reading and mathematics for pregnant bilingual students. An historical regression analysis did show students gained over 1 month in reading and mathematics for each month of the treatment period. Students made statistically significant gains in Spanish vocabulary and comprehension.	Hollinshead, M.T. Bilingual instruction in reading and mathematics of pregnant non-English speaking students. Brooklyn, NY: New York City Board of Education, Office of Educational Evaluation. (ERIC Document Reproduction Service No. ED 137 450.)	Individualized instruction in and of itself does not always produce statistically significant results. Language barriers that deter communication must be removed.
Of 292 enrollees in a program for continuing the education of pregnant school-age girls, only 11% became dropouts, with the remainder either graduating or returning to school to continue their education. Girls in the special program achieved a slightly higher honor point average in their classes than they had in regular school.	McCarthy, J., & Syropoulos, M. *Evaluation of the Program to Continue the Education of Girls Who Must Leave School Because of Pregnancy, 1971-1972.* Detroit, MI: Detroit Public Schools, Michigan Department of Research and Development.	A warm, noncensuring educational climate where students share a common handicap promotes the mutual support for one another that is needed to continue the education process. These things combined with a low pupil-teacher ratio and additional supportive services of a comprehensive pregnancy program help pregnant adolescents restore their self-concepts and self-respect and revive educational and career aspirations.

Findings	Source	Interpretation
XI. Adolescent Pregnancy/Medical, Health and Nutrition		
Teenage pregnancy among the urban, nonwhite poor is characterized by poor outcomes, primarily as a reflection of the high-risk obstetric population from which it derives, and only secondarily due to any risk inherent to maternal age. A striking characteristic of this age group is its tendency to repeat pregnancies.	Hutchins, F.L. *et al.* Experience with teenage pregnancy. *Obstetrics and Gynecology,* 1979.	Teenage pregnancy is a sociologic problem with medical consequences, and medical programs as they presently exist are incapable of bringing about the ultimate solution – prevention.

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